

Response to Office Action Dated December 2, 2004
Application No. 10/608,255
Client Ref. No: SIPI-P107

1 CLAIMS 1-16: CANCEL

1 17. (Currently Amended) A connector comprising:
2 a structure defining a cavity;
3 one or more electrical contact elements provided on the structure; and
4 a coupling structure formed from a matrix material comprising a plurality of
5 discrete elements, the plurality of discrete elements being aligned to receive an insertion
6 force for inserting a mating component into the interior cavity, wherein the plurality of
7 discrete elements are structured so that the insertion force is distributed substantially
8 uniformly amongst multiple discrete elements in the plurality of discrete elements that are
9 part of a portion of the coupling structure that is affected by the insertion force, the
10 discrete elements in the portion being forced from an original state into a biased state,
11 wherein when the elements are in the biased state, a thickness of the coupling structure is
12 reduced; and
13 wherein a dimension of the cavity is proportional to the thickness of the coupling
14 structure, so that the dimension of the cavity is increased when the thickness of the
15 coupling structure is reduced.

1 18. (Currently Amended) The connector of claim 17, wherein before the insertion
2 force is applied, the plurality of discrete elements include a set of discrete elements that
3 have a first skewed orientation with respect to a primary direction in which the insertion
4 force is to be applied, and wherein the set of discrete elements are aligned to ~~increase in~~
5 skew more from the first skewed orientation when affected by the insertion force.

1 19. (Currently Amended) The connector of claim 18, wherein after the insertion
2 force is applied, the set of discrete elements are biased to reduce in skew towards the first
3 skewed orientation.

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1 | 20. (Currently Amended) The connector of claim 17, wherein each of the discrete
2 | elements includes a member that is transverse and skewed relative to a primary direction
3 | of the insertion force.

1 | 21. (Currently Amended) The connector of claim 17, wherein the member of at least
2 | some of the discrete elements ~~is~~are aligned to be deflected and become more skewed
3 | relative to the primary direction of the insertion force when the insertion force is applied.

1 | 22. (Currently Amended) The connector of claim 17, wherein the member of each
2 | element in the plurality of discrete elements is configured to have a bias towards
3 | ~~becoming less skew~~not having skew ed after the insertion force is applied and the mating
4 | component is inserted, and wherein the bias coincides with the coupling structure
5 | pressing against the mating component.

1 | 23. (Currently Amended) A connector assembly comprising:
2 | a first-connector comprising a first-mating section upon which a first plurality of
3 | contact elements are distributed;
4 | a component comprising a cavity for receiving the mating section, and the
5 | component having a second plurality of contact elements;
6 | a coupling structure disposed on a surface of at least one of the mating section and
7 | the cavity, the coupling structure being formed from a matrix material comprising a
8 | plurality of discrete elements, the plurality of discrete elements being aligned to be
9 | affected by an insertion force for ~~insertion~~inserting the component into the cavity,
10 | wherein the plurality of discrete elements are structured so that the insertion force is
11 | distributed substantially uniformly amongst multiple elements in the plurality of discrete
12 | elements that are part of a portion of the coupling structure that is affected by the
13 | insertion force, the discrete elements in the portion being forced from an original state
14 | into a biased state, wherein when the discrete elements are in the biased state, a thickness

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15 of the coupling structure is reduced; and
16 wherein a dimension of the cavity with respect to a size of the mating section is
17 proportional to the thickness of the coupling structure, so that the dimension of the cavity
18 accommodates the mating section only after the thickness of the coupling structure is
19 reduced.

1 24. (Original) The connector apparatus of claim 23, wherein the coupling structure is
2 disposed on the surface of the mating section.

1 25. (Original) The connector apparatus of claim 23, wherein the coupling structure is
2 disposed on the surface of the cavity.

1 26. (Original) The connector apparatus of claim 23, wherein the coupling structure is
2 disposed on both the surface of the mating section and the surface of the cavity.